

United States Patent and Trademark Office



UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/735,501	12/12/2003	Yasuhiko Onishi	FU Л:180A	1911	
7590 12/10/2004			EXAMINER		
Marc A. Rossi			WARREN, MATTHEW E		
ROSSI & ASS	OCIATES				
P.O. Box 826		ART UNIT	PAPER NUMBER		
Ashburn, VA	20146-0826	2815			
			DATE MAILED: 12/10/2004		

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application	Application No. Applicant(s)					
Office Action Summary		10/735,50	01	ONISHI ET AL.				
		Examiner		Art Unit				
		Matthew E		2815 ·				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply								
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).								
Status								
1)⊠ Responsive to communication(s) filed on <u>12 December 2003</u> .								
2a) 🗌	This action is FINAL . 2b) This action is non-final.							
3)	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is							
	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.							
Disposition of Claims								
4) 🛛	4)⊠ Claim(s) <u>48-51</u> is/are pending in the application.							
	4a) Of the above claim(s) is/are withdrawn from consideration.							
	5) Claim(s) is/are allowed.							
	S)⊠ Claim(s) <u>48-51</u> is/are rejected.							
·	7) Claim(s) is/are objected to.							
8)[Claim(s) are subject to restriction	and/or election re	equirement.					
Application	on Papers							
9) The specification is objected to by the Examiner.								
10)⊠ The drawing(s) filed on <u>12 December 2003</u> is/are: a)□ accepted or b)□ objected to by the Examiner.								
	Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).							
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.								
Priority u	nder 35 U.S.C. § 119							
12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a)⊠ All b)□ Some * c)□ None of:								
1.☐ Certified copies of the priority documents have been received.								
2. Certified copies of the priority documents have been received in Application No. 09/781,066.								
3. Copies of the certified copies of the priority documents have been received in this National Stage								
application from the International Bureau (PCT Rule 17.2(a)).								
* See the attached detailed Office action for a list of the certified copies not received.								
Attachment	(s) e of References Cited (PTO-892)		4) Intensions Commercia	(PTO 412)				
2) Notice	e of Draftsperson's Patent Drawing Review (PTO-9		4) Interview Summary Paper No(s)/Mail Da	te				
	nation Disclosure Statement(s) (PTO-1449 or PTO/ No(s)/Mail Date <u>4/1/04 & 11/4/94</u> .	/SB/08)	5) Notice of Informal P	atent Application (PT)	0-152)			

DETAILED ACTION

This Office Action is in response to the Preliminary Amendment filed on December 12, 2003.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 48-51 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "relatively low" in claim 48 is a relative term which renders the claim indefinite. The term "relatively low" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The term "relatively low" renders the phrase "electrical resistance" indefinite because it cannot be determined specifically what value is considered to be a low electrical resistance.

Claims 49 and 51 each recites the limitation "the plane" in the first lines of claims 49 and 51 and the third line of claim 49. There is insufficient antecedent basis for this limitation in the claim. This limitation renders the claims indefinite because it cannot be ascertained if "the plane" refers to one of the "boundary planes" recited in independent claim 48 or if "the plane" is a new limitation.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 48, 49, and 51, as far as understood, are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 7, 8, and 11 of U.S. Patent No. 6,724,042. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1, 2, 7, 8, and 11 of Patent '042 contain all of the limitations of claim 48 of the instant invention.

Claims 8 and 11 of Patent '042 also include the limitations of claims 49 and 51 of the instant invention.

Allowable Subject Matter

Although claim 48 was rejected above under 35 USC 112, claim 50 contains allowable subject matter. The claim would be allowable if the 112 rejection above were overcome and rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shindou et al. (US 6,677,626 B1) and Inoue et al. (JP 2001-332726 A) also disclose semiconductor devices comprising vertical drift current path regions and partition regions extending from the active region of the device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E Warren whose telephone number is (571) 272-1737. The examiner can normally be reached on Mon-Thur and alternating Fri 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/735,501

Art Unit: 2815

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

Status information for unpublished applications is available through Private PAIR only.

published applications may be obtained from either Private PAIR or Public PAIR.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

MEW MEW

November 30, 2004

Page 5